
CHECKLIST FOR THE APPROVAL OF: MULTIPLIER OF 2 FOR CHEMICALLY TREATED GLASS (DRAFT 6)

- ❑ Basic Requirements Checklist.
- ❑ Two sets of the manufacturer's 'approval document' including:
 - a. Glass thickness qualified, and
 - b. Description and location of permanent identification marks on the glass. (Show exact wording of identification.)
- ❑ Provide a complete quality control procedure for the chemical treating process. The procedure is to include:
 - a. Outline of general glass processing procedures,
 - b. Labeling procedures,
 - c. Indication that at least 10 coupon samples are processed with each batch of glass produced in order to perform MOR tests per ASTM C158 Method A, verifying that the mean MOR is greater than or equal to the mean value approved.
 - d. Indication that the glass produced will be sampled for compliance with ASTM C1422 at least once a year, and
 - e. Indication of any additional quality control test methods that will be followed.
- ❑ Manufacturer's brochure with description, characteristics, use, installation, etc. of the product considered for approval.

The following current laboratory tests and test reports in compliance with protocol PA 301.

- ❑ ASTM C1422. The chemically strengthened glass specimens tested in ASTM C158 and ASTM E997 shall fall within Level 1 - Surface Compression (minimum 5500 psi), and Level A - Case Depth as specified in ASTM C1422.
- ❑ Modulus of rupture tests per ASTM C158 Method A. (Each thickness of glass being qualified must be tested for MOR. The MOR test must be performed on both the soda-lime chemically treated glass and soda-lime annealed raw float glass. Thirty (30) specimens of each glass type and thickness are required per ASTM C158. The mean MOR of each chemically treated glass and thickness must be at least 2-times that of the mean MOR of soda-lime annealed raw float glass of equivalent thickness.)

- Structural wind load tests per ASTM E997 on chemically strengthened glass. Select the design load from ASTM E1300 corresponding to the selected glass thickness, and an area of 20 ft² (panel to be tested). Apply the multiplier of 2 to the design load obtained from the tables to obtain the target design load of the lite. Ten (10) lites of each thickness being qualified are to be tested in accordance with ASTM E997 in order to achieve a confidence level of 8/1000. Six (6) of the ten (10) lites of each thickness are required to withstand a proof load equal to 1.4 times the design load for 60 seconds without breakage. Failure of more than 4 lites constitutes a failure of the targeted design. Retesting may only be done once an adjustment is made to the allowed probability of failures and/or product design modifications are made. Upon completion of ASTM E997 continue to load each specimen to failure, and have laboratory report this load in final report.

Note:

1. Video of test ASTM E997 is required.